

REMARKS

Claims 9-16 are now present in this application. Claims 1-8 have been canceled and claims 9-16 have been added. Claims 9, 11 and 13 are independent. Reconsideration of the application, as amended, is respectfully requested.

Objection to the Drawings

The drawings stand objected to because Figure 11 has not been designated by a legend such as "Prior Art." As the Examiner will note, a Preliminary Amendment was submitted on March 1, 2005 in order to amend Figure 11 to include the legend "Prior Art." In view of this, the Examiner's drawing objection is improper and should be withdrawn. Reconsideration and withdrawal of the drawing objection are therefore respectfully requested.

Rejection under 35 U.S.C. § 112

Claims 1-7 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed.

As the Examiner will note, claims 1-7 have been canceled and claims 9-15 have been added. Applicants respectfully submit that claims 9-15 have been amended, taking the Examiner's deficiencies into consideration. In view of this, claims 9-15 are definite and clear. Reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 112, second paragraph, are therefore respectfully requested.

Rejections under 35 U.S.C. §§ 102 and 103

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by AAPA (Applicant's Admitted Prior Art). Claims 3-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Farquharson, U.S. Patent No. 3,340,669. Claims 6-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Farquharson in view of Cope, U.S. Patent No. 4,877,334. These rejections are respectfully traversed.

At the outset, it is respectfully noted that claims 1-8 have been canceled without prejudice to or disclaimer of the subject matter contained therein. In addition, claims 9-16 have been added. Applicants respectfully submit that claims 9-16 define the present invention over the references relied on by the Examiner.

The present invention is directed to a cushioning package containing an article to be packaged, a method of manufacturing a cushioning package containing an article to be packaged and an apparatus for manufacturing a cushioning package containing an article to be packaged.

Independent claim 9 is directed to a cushioning package and recites a combination of elements including "a cushioning sheet comprising overlapped flexible resin sheets, the cushioning sheet including a group of independent small cells formed in the shape of a strip by heat-sealing and dividing the cushioning sheet" and "an article storage space formed by folding the cushioning sheet along a crease crossing said small cells, the crease being transverse to a longitudinal direction of the small cells."

Independent claim 11 is directed to the method and recites a combination of steps including "using a cushioning sheet made of flexible resin sheets that are placed one on another, heat-sealed and divided into a group of independent small cells in the shape of a strip" and "forming an article storage space by folding the cushioning sheet in a direction transverse to a longitudinal direction of the small cells along a crease."

Independent claim 13 is directed to the apparatus and recites a combination of elements including “an article storage space forming unit in which a cushioning sheet made of flexible resin sheets that are placed one on another, heat-sealed and divided into a group of independent small cells formed in the shape of a strip, is folded along a crease that crosses the small cells, the crease being transverse to a longitudinal direction of the small cells.”

Applicants respectfully submit that the references relied on by the Examiner fail to teach or suggest the present invention as recited in independent claims 9, 11 and 13.

In particular, the AAPA, which is disclosed in Japanese Utility Model Registration No. 3009233 and which is discussed at page 1 of the present application, does not have small cells that are independently formed as recited in the independent claims of the present invention. In the AAPA, each of the small cells are connected to each other before and after the article is enclosed within the cushioning package. In the present invention; however, each of the small cells form a closed space and are therefore independent as recited in independent claim 9 of the present invention.

Once the cushioning package of the AAPA is damaged enough to have a hole in even one of the small cells, air in the small cells is entirely discharged through the hole, and the resulting package becomes useless. In the present invention; however, a cushioning package of the present invention maintains its functionality of being inflated and therefore cushions the article therein, even when air is discharged from one of the small cells. This is because each of the small cells forms a closed space and is independent from adjacent cells. This is an advantage over the AAPA.

In addition, in the presently claimed invention, a crease is formed in each of the cushioning packages. In the AAPA, the crease is parallel to the small cells, while the crease in the present invention is formed transverse to a longitudinal direction of the small cells.

With this configuration, the cushioning package of the AAPA may lose its air cushioning functionality in the portion of the crease when the crease, depending on how it is provided, is positioned over a gap between the small cells. In the present invention, air can be filled in the portion of a crease, since the crease intersects the small cells, which brings an air cushioning effect to the crease portion of the cushioning package. This is also an advantage over the AAPA.

Since the AAPA fails to disclose a group of independent small cells that form a closed space and an article storage space that is formed by folding the cushioning sheet along a crease that is transverse to a longitudinal direction of the small cells, Applicants respectfully submit that independent claim 9 and dependent claim 10 clearly define the present invention over the AAPA. In view of this, reconsideration and withdrawal of the Examiner's rejection of claims 1 and 2 in view of the AAPA are respectfully requested.

With regard to the Farquharson reference relied on by the Examiner, this reference discloses a cushioning product that does not have a group of independent small cells in the shape of a strip as recited in independent claims 11 and 13 of the present invention.

A sheet used in the method of Farquharson is folded to form an M-shaped configuration and cross-section as seen in FIG. 2. The sheet is then formed into a packet. An item 18 to be enclosed is loaded in a recess 12, which is positioned, when viewed from the cross-section side, in the middle of the M-shaped configuration. The item is inserted from the upper side of the cross-section of the M-shaped configuration (see FIG. 1). Air is filled from the lower side of the M-shaped configuration into pockets 10, 14, which are positioned outside the recess 12 in a manner to sandwich the recess.

In the present invention as recited in independent claim 11, a cushioning sheet, which has small cells in advance, is folded, and the folding is formed along a crease that crosses the small cells, the crease being transverse to a longitudinal direction of the small cells. When air is filled

to inflate the small cells, the air filled into the small cells through the crease should reach the end of the small cells. Thus, filling of air into the small cells can be achieved at a single location per cell. When a packet of Farquharson is compared to the cushioning package of the presently claimed invention with regard to the filling of air, the present invention is superior to Farquharson. Because of the aforementioned M-shaped configuration and cross-section, pockets 10, 14 that are positioned outside the item 18 in a manner to sandwich the item 18 are not connected. Therefore, filling of air into each of the pockets needs to be performed separately.

In addition, since the lower crease in FIG. 2 (the folding line at the bottom of the M-shaped configuration) is sealed by heat sealing means, the sealed portion 16 where air is not filled does not have an air cushioning effect, and may not provide the enclosed item with protection.

In the present invention, with regard to the air cushioning effect, air can be filled in the folding portion situated in the small cells, which brings full protection for an article within the cushioning package.

In view of the above, Applicants respectfully submit that independent claims 11 and 13 and dependent claims 12 and 14-16 clearly define the present invention over the Farquharson reference relied on by the Examiner. Therefore, reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 102 are respectfully requested.

With regard to the Examiner's reliance on the Cope reference, as stated above, the present invention is completely different from Farquharson with regard to how air is filled into the cushioning package. In addition, Farquharson does not refer to anything about a structure of a group of independent small cells in the shape of a strip as recited in independent claims 11 and 13 of the present invention. Furthermore, Farquharson does not disclose folding of a cushioning package in a direction that is transverse to a longitudinal direction of a group of independent

small cells as recited in independent claims 11 and 13 of the present invention. The Cope reference has only been relied on for its teaching of inflating a cushioning package with an air nozzle. In view of this, the Cope reference fails to make up for the deficiencies of Farquharson.

In view of the above amendments and remarks, Applicants respectfully submit that claims 14-16 clearly define the present invention over the references relied on by the Examiner. Accordingly, reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 103 are respectfully requested.

Conclusion

All the stated grounds of rejection have been properly traversed and/or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently pending rejections and that they be withdrawn.

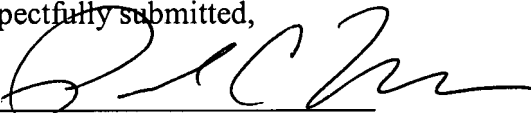
It is believed that a full and complete response has been made to the Office Action, and that as such, the Examiner is respectfully requested to send the application to Issue.

In the event there are any matters remaining in this application, the Examiner is invited to contact Paul C. Lewis, Registration No. 43,368 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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